OPP OFFICIAL RECORD
HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361

3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

8/11/03

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: **Metam-sodium.** List B Reregistration Case 2390. PC Code 039003. **Product Chemistry. MRIDs 459194-01, -03, & -04.** DP Barcodes D**289771, D289776, & D289777**, respectively.

FROM: K. Dockter, Chemist
Reregistration Branch 2
Health Effects Division [7509C]

8-11-03

THRU: Alan Nielsen, Branch Senior Scientist
Reregistration Branch 2
Health Effects Division [7509C]

8/11/03

TO: Carol Christensen, M.P.H., Risk Assessor
Reregistration Branch 2
Health Effects Division [7509C]

Taminco, a division of UCB n.v. Pantserschipstraat 207, B-9000 Gent [Belgium] has submitted physicochemical data on metam-sodium for reregistration. The performing lab was Huntingdon Life Sciences Ltd., P.O. Box 2 Huntingdon, Cambridgeshire, PE 18 6ES, England.

The three studies by J Betteley are:

459194-01 *Metam Sodium Physicochemiucal Properties* 153pp 12-8-97

459194-03 *Metam-Sodium Solubility in Water (ph 5 and Ph 9)* 18pp 2-12-02

459194-04 *Metam-Sodium Dissociation Constant* 27pp 2-12-02

Study 459194-01 data are depicted in the following table.

Property	**Result**	**Test method***
mp	86.5 - 90.5 C	Directive 94/37/EC method 2.1
Density, relative [D^{20}]	1.44	Pycnometer; 2.2
Color, Physical state, & odor	Munsell Neutral Scale is N9.5/90.0%R; white cryst. pwd. w/ sweet onion like smell	ASTM D1535-89; 2.4
IR, UV, & visible absorption	All spectra are consistent w/ its chem. struct.; wavenumbers: 3377-2928, 1531, & 1164 and Λ_{max} @ 280, 248, & 205 nm are obsd.	OECD GLN 101; 2.5
Water solubility	578.29 g/l @ 20 C	Flask method; 2.6
Solubility in org. solvents	acetone <0.2188 g/l ethyl acetate <0.2032 1,2-dichloroethane <0.2620 n-heptane <0.2126 xylene <0.2611 methanol 33-40	2.7
Partition coefficient	Log P $\leq$-2.91	Shake flask method; 2.8
Flammability	not highly flammable	2.11.1
Relative self-ignition	it does not self-ignite	2.11.2
Explosivity	it does not possess explosive properties	2.13
Surface tension	72.0 mN/m @ 21 C	2.14
Vapor pressure	5.75 x 10^{-2} Pa @ 25 C	Balance method

* All were consistent w/ OPPTS T G Series 830.

Study 459194-03 using EEC Method A6; OECD Method 105 gave water solubilities at pH 9 of 600, 734, and 701 g/l at 10, 20, and 30 C, respectfully. Solubility at pH 5 was not measurable.

Study 459194-04 using OECD Guideline 112 gave dissociation constants pK_a = 2.99 and 11.06.

Descriptions of the test methods, results - including raw data -, and calculations were given.

These data will be incorporated into the metam-sodium/MITC RED.

cc: RF, Dockter, C. Christensen, V. LaCapra
RD\I RRB2 metam-sodium/MITC RED Team.
7509C:RRB2:Rm712N:57886:KD/kd
40 = D289771.mem.

13544

R065392

Chemical:	**Metam-sodium**
PC Code:	**039003**
HED File Code	**11000 Chemistry Reviews**
Memo Date:	**08/11/2003**
File ID:	**DPD289771; DPD289776; DPD289777**
Accession Number:	**412-04-0038**

HED Records Reference Center
10/17/2003